

What's Between



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It's fairly safe to bet the subject of this story (we'll call him D.L.) checks between his sheets every night now before he climbs into bed. The last time he didn't, he got the surprise of a lifetime. A brown recluse spider had decided to share the space with him.

"I felt a slight tickle on my upper, left thigh and brushed it away," he said. "Then I felt a stinging sensation on my leg and lifted the covers to find a small, brown spider. I ran to the bathroom where I got some tissue, grabbed the spider, and flushed it down the toilet."

D.L. had a feeling of personal victory for about an hour. By that time, the bite area had swollen to the size of a quarter.

"I went to a doctor that afternoon," he said, "and the doctor asked me if the spider was a brown recluse. I never had seen such a spider before, but I agreed it could have been after hearing the description of one. The doctor gave

D.L.'s bite on day 1.



me some antibiotics and circled the area with a marker, then sent me home."

Later that evening, a white infected area formed in the bite site.

"I'm told this area is called the 'bull's-eye,'" explained D.L. "It's a definite telltale sign of a brown recluse bite. The area around the bite had turned blue and dark red and now extended outside the circled area. My fiancée took me to an emergency room, where I was rushed into surgery. I spent eight days with an

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open cut at the bite site to drain the spider's toxins from it. I also spent 24 hours on IV antibiotics and pain medication. In the end, doctors had to cut away an area of dead tissue on my leg—a result of the toxins. The area measured 5 inches in diameter.”

In eight more days, D.L. underwent skin grafting on the area where doctors had removed the dead tissue.

“Unfortunately,” he noted, “that area never again will look the same. I’m lucky, though, because if I had waited a day longer, I might have lost my leg.”

Like many people, D.L. didn’t know much about the brown recluse spider before this incident occurred. He didn’t even know the spider existed in central Illinois where he lives. (Although the brown recluse spider is found mainly in Southern and Midwestern states, it isn’t limited to those regions.)



D.L.'s bite on day 3.



D.L.'s bite on day 9.

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D.L.'s bite on day 10.

According to entomologists, the brown recluse spider isn't aggressive. Most victims contact them when putting on clothing or shoes they haven't worn for a long period, when using a bed that's been in storage, or when cleaning out undisturbed areas. Fatalities are rare, but bites are dangerous to children, the elderly, and those in poor physical condition.

Adult brown recluse spiders have yellowish-tan to dark brown soft bodies about one-quarter-to-one-half-inch long, and their grayish to dark brown legs—eight of them—are covered with short, dark hairs. The leg span is about the size of a half-dollar. Distinguishing characteristics include three pairs of eyes arranged in a semicircle on the forepart of the head and a violin-shaped, dark marking immediately behind the semicircle of eyes. The neck of the violin points toward a bulbous abdomen. Both male and female brown recluse spiders look similar

and are equally toxic. The immature stages closely resemble the adults, except for size and a slightly lighter color.

This spider is most active at night, when it comes out searching for food—mainly cockroaches and other small insects. During the day, it stays in quiet, undisturbed places such as bathrooms, bedrooms, closets, basements, and cellars. The spider sometimes takes shelter under furniture, appliances, and carpets; behind baseboards and door facings; or in corners and crevices. Some have been found in stored clothing or old shoes, on the undersides of tables and chairs; and in folded bedding and towels that have been stored for a long time. Outdoors, you can find the spider in sheltered corners among debris; in woodpiles; under loose bark and stones; or in old barns, storage sheds, and garages. The brown recluse is very adaptable and may be active in temperatures ranging from 45 to 110 degrees Fahrenheit.

The severity of a person's reaction to the bite depends on the amount of venom injected and the individual's sensitivity to it. Bite effects may be nothing at all, immediate or delayed. Some people may not be aware of the bite for two to eight hours, while others feel a stinging sensation, usually followed by intense pain—in cases of a severe reaction. A small white blister usually rises at the bite site, surrounded by a large, congested and swollen area. Within 24 to 36 hours, a systemic reaction may occur with the victim, characterized by restlessness, fever, chills, nausea, weakness, and joint pain. The affected area enlarges, becomes inflamed, and the tissue is hard to the touch. The spider's venom contains an enzyme that destroys cell membranes in the wound area, with affected tissue gradually sloughing away, exposing underlying tissues.

Within 24 hours, the bite site can erupt into a "volcano lesion" (a hole in the flesh due to damaged, gangrenous tissue). The open wound

may range from the size of an adult's thumbnail to the span of a hand. The sunken, ulcerating sore may heal slowly, up to six to eight weeks. Full recovery may take several months, and scarring may remain. Plastic surgery and skin grafts sometimes are required.

If bitten by a brown recluse, remain calm, collect the spider, if possible (for positive identification), and immediately get medical attention (contact your physician, hospital or poison information center). Apply an antiseptic solution to prevent infection, and put ice packs directly on the area to relieve swelling and pain.

An effective antivenom usually isn't available, but many physicians administer high doses of cortisone-type hormones to combat hemolysis and other systemic complications. A report suggests that treatment with dapsone (a drug used mainly for leprosy) may reduce the degree of tissue damage.

The brown recluse spider normally bites only when crushed, handled or disturbed. It aptly is named because it is a reclusive creature that seeks and prefers seclusion. Here are some tips to keep you from getting bitten:

- Shake out clothing and shoes before dressing, and inspect bedding and towels before using.
- Don't go barefoot or handle firewood without gloves.
- Remove trash, old boxes, piles of lumber, old clothing, and other unwanted items. Eliminate cluttered areas in basements, closets, attics, and other outbuildings.
- Dust and vacuum thoroughly and frequently around windows, corners in rooms, under furniture, and in storage areas and undisturbed places to eliminate spiders, webs and egg sacs. Use a dust mop, broom and dust pan if needed.
- Install screens on doors and windows to prevent entry. Seal or caulk cracks and crevices where spiders can enter the house. Wash off the outside of the house and roof eaves.
- Use approved pesticides, but always read the label, and follow directions and precautions. 



As the author states, these spiders usually are found in dark, out-of-the-way places. This account is the first one I've heard about where someone was bitten in bed. These shy insects normally only bite when threatened, and, as opposed to this case, the bite is painless, and the spider seldom is seen. Although brown recluse bites can become secondarily infected and can need antibiotics, this treatment usually isn't required on the first day, as it was in this case. And, although hospitalization may be necessary for systemic reactions, I never before have heard of hospitalization for eight days to let toxins drain from the wound.—Capt. James Fraser, head, aeromedical division



D.L.'s bite on day 11.